Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An airbag module for protecting an occupant of a vehicle from impact, the airbag module comprising:

an inflator that produces inflation gas in response to receipt of an activation signal; and

a cushion positionable within an instrument panel of the vehicle to receive the inflation gas such that the cushion inflates to provide impact protection, wherein the cushion is in a compacted configuration in which the cushion has a small thickness perpendicular to a periphery of the instrument panel, the cushion having an area greater than 150 square inches parallel to the periphery, the cushion being within a housing and wherein the inflator contacts or is adjacent to the housing.

Claim 2 (original): The airbag module of claim 1, wherein the area is greater than 200 square inches.

Claim 3 (original): The airbag module of claim 2, wherein the area is greater than 250 square inches.

Claim 4 (original): The airbag module of claim 1, wherein the thickness perpendicular to the periphery is less than two inches along substantially all of the area.

Claim 5 (original): The airbag module of claim 2, wherein the thickness perpendicular to the periphery is less than one inch along substantially all of the area.

Claim 6 (original): The airbag module of claim 5, wherein the thickness perpendicular to the periphery is less than one-half inch along substantially all of the area.

Claim 7 (original): The airbag module of claim 1, further comprising a cover extending along the periphery to conceal the cushion from the occupant, wherein the cover is frangible to permit emergence of the cushion through the periphery.

Claim 8 (withdrawn): The airbag module of claim 7, wherein the cover comprises a forward edge and a rearward edge, wherein, in response to expansion of the cushion, a bulge is formed proximate the forward edge and the rearward edge is detached from the instrument panel to permit the cover to open.

Claim 9 (canceled)

Claim 10 (original): The airbag module of claim 7, wherein the cover comprises a membrane having a pliable construction.

Claim 11 (original): The airbag module of claim 10, further comprising a tear initiation member having a generally rigid construction, wherein the tear initiation member is positioned between the cushion and the membrane, the tear initiation member having an edge that is movable in response to pressure from the cushion to form a tear in the membrane.

Claim 12 (original): The airbag module of claim 1, wherein the inflator and the cushion are both positioned proximate the periphery and the inflator is displaced from a center of the cushion primarily along a direction parallel to the periphery.

Claim 13 (original): The airbag module of claim 12, wherein the inflator is positioned forward of the cushion.

Claim 14 (currently amended): The airbag module of claim 12, ~~further comprising a~~ wherein the housing is positionable to retain the inflator and the cushion, wherein the housing has a generally planar shape oriented generally parallel to the cushion.

Claim 15 (canceled)

Claim 16 (withdrawn): The airbag module of claim 12, further comprising a diffuser having a generally planar shape oriented generally parallel to the cushion, wherein the diffuser comprises a plurality of orifices positioned to receive inflation gas from along a direction generally parallel to the cushion and to direct the inflation gas into the cushion.

Claim 17 (currently amended): An airbag module for protecting an occupant of a vehicle from impact, the airbag module comprising:

an inflator that produces inflation gas in response to receipt of an activation signal;

a cushion positionable within an instrument panel of the vehicle to receive the inflation gas such that the cushion inflates to provide impact protection, the cushion being within a housing; and

a cover extending along the periphery to conceal the cushion from the occupant;

wherein the inflator is positioned to eject the inflation gas directly into an interior portion of the cushion, wherein the inflator contacts or is adjacent to the housing; wherein the interior portion is separated from the cover by only a single layer of a material of which the cushion is formed.

Claim 18 (withdrawn): The airbag module of claim 17, wherein the cover comprises a forward edge and a rearward edge, wherein, in response to expansion of the cushion, a bulge is formed proximate the forward edge and the rearward edge is detached from the instrument panel to permit the cover to open.

Claim 19 (canceled)

Claim 20 (original): The airbag module of claim 17, wherein the cover comprises a membrane having a pliable construction.

Claim 21 (original): The airbag module of claim 20, further comprising a tear initiation member having a generally rigid construction, wherein the tear initiation member is positioned between the cushion and the membrane, the tear initiation member having an edge that is movable in response to pressure from the cushion to form a tear in the membrane.

Claim 22 (original): The airbag module of claim 17, wherein the inflator and the cushion are both positioned proximate the periphery and the inflator is displaced from a center of the cushion primarily along a direction parallel to the periphery.

Claim 23 (original): The airbag module of claim 22, wherein the inflator is positioned forward of the cushion.

Claim 24 (currently amended): The airbag module of claim 22, ~~further comprising a~~ wherein the housing is positionable to retain the inflator and the cushion, wherein the housing has a generally planar shape oriented generally parallel to the cushion.

Claim 25 (canceled)

Claim 26 (original): The airbag module of claim 17, wherein the cushion comprises a plurality of folds displaced from the interior portion along a direction generally parallel to the periphery.

Claim 27 (currently amended): An airbag module for protecting an occupant of a vehicle from impact, the airbag module comprising:

an inflator that produces inflation gas in response to receipt of an activation signal;

a cushion positionable within an instrument panel of the vehicle to receive the inflation gas such that the cushion inflates to provide impact protection, wherein the cushion is in a compacted configuration in which the cushion has a small thickness perpendicular to a periphery of the instrument panel; and

a housing positionable within the instrument panel to retain the inflator and the cushion such that the inflator and the cushion, in the compacted configuration, are both positioned proximate the periphery and the inflator is displaced from a center of the cushion primarily along a direction parallel to the periphery, the cushion being within the housing and wherein the inflator contacts or is adjacent to the housing.

Claim 28 (original): The airbag module of claim 27, further comprising a cover extending along the periphery to conceal the cushion from the occupant, wherein the cover is frangible to permit emergence of the cushion through the periphery.

Claim 29 (withdrawn): The airbag module of claim 28, wherein the cover comprises a forward edge and a rearward edge, wherein, in response to expansion of the cushion, a bulge is formed proximate the forward edge and the rearward edge is detached from the instrument panel to permit the cover to open.

Claim 30 (canceled)

Claim 31 (original): The airbag module of claim 28, wherein the cover comprises a membrane having a pliable construction.

Claim 32 (original): The airbag module of claim 31, further comprising a tear initiation member having a generally rigid construction, wherein the tear initiation member is positioned between the cushion and the membrane, the tear initiation member having an edge that is movable in response to pressure from the cushion to form a tear in the membrane.

Claim 33 (original): The airbag module of claim 28, wherein the inflator is displaced from the cover by a distance of less than two inches.

Claim 34 (original): The airbag module of claim 27, wherein the inflator is positioned forward of the cushion.

Claim 35 (original): The airbag module of claim 27, wherein the housing has a generally planar shape oriented generally parallel to the cushion.

Claim 36 (canceled)

Claim 37 (withdrawn): The airbag module of claim 27, wherein the housing comprises a diffuser having a generally planar shape oriented generally parallel to the cushion, wherein the diffuser comprises a plurality of orifices positioned to receive inflation gas from along a direction generally parallel to the cushion and to direct the inflation gas into the cushion.

Claim 38 (currently amended): An airbag module for protecting an occupant of a vehicle from impact, the airbag module comprising:

an inflator that produces inflation gas in response to receipt of an activation signal;

a cushion positionable to receive the inflation gas such that the cushion inflates to provide impact protection; and

a housing positionable to retain the inflator and the cushion, wherein the housing comprises a generally rigid structure that is deformable in response to impact of the occupant against the cushion to absorb kinetic energy from the occupant, wherein the inflator contacts or is adjacent to the housing.

Claim 39 (original): The airbag module of claim 38, wherein the cushion is positionable within an instrument panel of the vehicle, the airbag module further comprising a cover

extending along a periphery of the instrument panel to conceal the cushion from the occupant, wherein the cover is frangible to permit emergence of the cushion through the periphery.

Claim 40 (withdrawn): The airbag module of claim 39, wherein the cover comprises a forward edge and a rearward edge, wherein, in response to expansion of the cushion, a bulge is formed proximate the forward edge and the rearward edge is detached from the instrument panel to permit the cover to open.

Claim 41 (canceled)

Claim 42 (original): The airbag module of claim 39, wherein the cover comprises a membrane having a pliable construction.

Claim 43 (original): The airbag module of claim 42, further comprising a tear initiation member having a generally rigid construction, wherein the tear initiation member is positioned between the cushion and the membrane, the tear initiation member having an edge that is movable in response to pressure from the cushion to form a tear in the membrane.

Claim 44 (original): The airbag module of claim 38, wherein the cushion is positionable within an instrument panel of the vehicle, wherein the inflator and the cushion are both positioned proximate a periphery of the instrument panel and the inflator is displaced from a center of the cushion primarily along a direction parallel to the periphery.

Claim 45 (original): The airbag module of claim 44, wherein the inflator is positioned forward of the cushion.

Claim 46 (canceled)

Claim 47 (withdrawn): The airbag module of claim 44, wherein the housing comprises a diffuser having a generally planar shape oriented generally parallel to the cushion, wherein the diffuser comprises a plurality of orifices positioned to receive inflation gas from along a direction generally parallel to the cushion and to direct the inflation gas into the cushion.

Claim 48 (currently amended): A method for manufacturing an airbag module for protecting an occupant of a vehicle from impact, wherein the airbag module is designed to be installed in an instrument panel of the vehicle, the instrument panel having a periphery, the airbag module having an inflator, a cushion, and a housing, the method comprising:

compacting the cushion; and

coupling the inflator and the cushion to the housing such that the cushion is positioned to receive inflation gas from the inflator, wherein the cushion, housing, and inflator form the airbag module shaped such that, after installation in the instrument panel, the cushion has a small thickness perpendicular to the periphery and an area greater than 150 square inches parallel to the periphery, the cushion being within the housing and wherein the inflator contacts or is adjacent to the housing.

Claim 49 (original): The method of claim 48, wherein the area is greater than 250 square inches.

Claim 50 (original): The method of claim 48, wherein the thickness perpendicular to the periphery is less than two inches along substantially all of the area.

Claim 51 (original): The method of claim 48, wherein the airbag module further comprises a cover that is frangible to permit emergence of the cushion through the periphery, the method further comprising coupling the cover to the housing such that, after installation of the airbag module in the instrument panel, the cover extends along the periphery to conceal the cushion from the occupant.

Claim 52 (original): The method of claim 51, wherein the cover comprises a membrane having a pliable construction, wherein coupling the cover to the cushion comprises stretching the membrane over the cushion.

Claim 53 (original): The method of claim 52, wherein airbag module further comprises a tear initiation member having a generally rigid construction, the method further comprising positioning the tear initiation member between the cushion and the membrane, wherein the tear initiation member has an edge that is movable in response to pressure from the cushion to form a tear in the membrane.

Claim 54 (original): The method of claim 48, wherein coupling the inflator and the cushion to the housing comprises positioning the inflator and the cushion such that, after installation of the airbag module in the instrument panel, the inflator and the cushion are both proximate the periphery and the inflator is displaced from a center of the cushion primarily along a direction parallel to the periphery.

Claim 55 (original): The method of claim 54, coupling the inflator and the cushion to the housing comprises positioning the inflator and the cushion such that, after installation of the airbag module in the instrument panel, the inflator is forward of the cushion.

Claim 56 (canceled)

Claim 57 (withdrawn): The method of claim 54, wherein the housing is shaped to form a diffuser having a generally planar shape with a plurality of orifices, wherein coupling the inflator and the cushion to the housing comprises orienting the diffuser generally parallel to the cushion such that the orifices are positioned to receive inflation gas from along a direction generally parallel to the cushion and to direct the inflation gas into the cushion.

Claim 58 (currently amended): A method for protecting an occupant of a vehicle from impact through the use of an airbag module installed in an instrument panel of the vehicle, the airbag module comprising an inflator, a cushion, and a cover, the method comprising:

transmitting an activation signal to trigger production of inflation gas by the inflator;

ejecting the inflation gas from the inflator directly into an interior portion of the cushion, wherein the interior portion is separated from the cover by only a single layer of a material of which the cushion is formed, wherein the cover extends along a periphery of the instrument panel, the cushion being within a housing and wherein the inflator contacts or is adjacent to the housing; and

rupturing the cover to permit the cushion to emerge from within the instrument panel to provide impact protection.

Claim 59 (withdrawn): The method of claim 58, wherein the cover comprises a forward edge and a rearward edge, wherein rupturing the cover comprises:

forming a bulge proximate the forward edge; and

detaching the rearward edge from the instrument panel to permit the cover to open.

Claim 60 (currently amended): The method of claim 58, wherein the inflator and the cushion are both positioned proximate the periphery and the inflator is displaced forward of the cushion~~, wherein ejecting the inflation gas from the inflator directly into the interior portion comprises moving the inflation gas rearward~~.

Claim 61 (canceled)

Claim 62 (currently amended): The method of claim 58, wherein the cushion comprises a plurality of folds displaced from the interior portion along a direction generally parallel to the periphery~~, the method further comprising conveying the inflation gas from the interior portion into the folds to induce the cushion to unfold~~.

Claims 63-68 (canceled)